Amendments to the Claims

1. (Currently Amended) A system for triggering a plurality of test and measurement instruments substantially simultaneously, comprising:

a first test and measurement instrument having ~~a first~~ an input for receiving a signal under test~~, an output for developing a trigger enable signal, and an input for receiving a combined trigger signal~~ and a transceiver for developing a trigger enable signal and receiving a combined trigger signal;

a second test and measurement instrument having ~~a first~~ an input for receiving a signal under test~~, an output for developing a trigger enable signal, and an input for receiving a combined trigger signal~~ and a transceiver for developing a trigger enable signal and receiving a combined trigger signal; and

circuitry for logically combining said trigger enable signals of said first and second test and measurement instruments to generate said combined trigger signal~~;~~, the circuitry for combining having a first and second transceivers for receiving said trigger enable signals and transmitting said combined trigger signal;

wherein each of said test and measurement instruments is coupled to said circuitry for combining via a cable, ~~connecting a respective pair of transceivers, and~~ said trigger enable signal and said combined trigger signal ~~are~~ being conveyed in mutually opposite directions through said cable; and

said first and second test and measurement instruments acquire data samples of said signals under test in response to said combined trigger signal.

2. (Currently Amended) The system of claim 1, wherein said transceivers comprise:

a series combination of a variable impedance device, a switch and a constant current source; wherein:

~~said first and second test and measurement instruments having respective transceivers in which~~ a junction of said variable impedance device and said switch is adapted to transmit said trigger enable signal.

3. (Currently Amended) The system of claim 2, wherein ~~said first and second test and measurement instruments have respective transceivers in which~~ an output terminal of said variable impedance device is monitored to receive said combined trigger signal.

4. (Previously Presented) A system, comprising:

a plurality of signal acquisition devices, each of said signal acquisition devices comprising an event decoder, for monitoring at least one respective input signal to determine whether a logical triggering event has occurred, and a transceiver, for transmitting an indicium of the occurrence of said logical triggering event and for receiving a trigger signal; and

a trigger controller, comprising a plurality of transceivers operative to receive said logical triggering event indicium from each of said plurality of said signal acquisition devices, transmit said trigger signal, and a logical processing device for combining said logical triggering event indicia to produce therefrom said trigger signal.

5. (Currently Amended) The system of claim 4, wherein said transceivers comprise:

a series combination of a variable impedance device, a switch and a constant ~~energy~~ current source; wherein

a junction of said variable impedance device and said switch is adapted to transmit said indicium of the occurrence of said logical event.

6. (Previously Presented) The system of claim 5, wherein:

an output terminal of said variable impedance device is monitored to receive said trigger signal.

7. (Cancelled)

8. (Previously Presented) Apparatus for use in a test and measurement instrument, comprising:

an event decoder, for monitoring at least one input signal to determine whether a logical triggering event has occurred, and generating a trigger enable signal in response thereto;

a terminal for receiving a conductor, said conductor coupling signals between said apparatus and an external device, said conductor conveying said trigger enable signal and a trigger signal in mutually opposite directions; and

a transceiver, coupled to said terminal, for transmitting said trigger enable signal and for receiving said trigger signal.

9. (Currently Amended) The apparatus of claim 8, wherein said test and measurement instrument ~~futher~~ further comprises an acquisition unit, for acquiring a plurality of said data samples from at least one input signal in response to said trigger signal.

10. (Previously Presented) The apparatus of claim 8, wherein said transceiver comprises:

a series combination of a variable impedance device, a switch and a constant current source; wherein

a junction of said variable impedance device and said switch is adapted to transmit said trigger enable signal.

11. (Previously Presented) The apparatus of claim 10, wherein:

an output terminal of said variable impedance device is monitored to receive said trigger signal.

12. (Previously Presented) The apparatus of claim 10, wherein:

said variable impedance device comprises a transistor.

13. (Currently Amended) The apparatus of claim 8, wherein:

said apparatus is used in each of a plurality of test and measurement instruments, each of said plurality of ~~of~~ test and measurement instruments using its respective transceiver to transmit a respective trigger enable signal and to receive said trigger signal.

14. (Previously Presented) The apparatus of claim 13, wherein:

said external device is a trigger controller; and

each transceiver of each of said test and measurement instruments communicates with a corresponding transceiver in said trigger controller, said trigger controller logically combining said respective trigger enable signals to produce said trigger signal.